Attachment 7
PROCESS INFORMATION

Pueblo Chemical Depot (PCD) manages hazardous waste onsite. The primary missions of PCD are the storage and management of chemical munitions and environmental restoration. The hazardous waste storage practices include the storage and management of containers, as regulated by 6 Code of Colorado Regulations (CCR) 1007-3 § 264 Subpart I. This section describes the management practices and storage facilities at PCD.

7-1 Containers [6 CCR 1007-3 § 264.170 through 264.179 and 264.1086(c)]

PCD stores hazardous wastes in containers. These wastes include agent-related wastes and non agent-related wastes. Agent-related wastes are confined to the Resource Conservation and Recovery Act (RCRA)-permitted hazardous waste management units G203, G1009, G1107, G1109, and G1110. At PCD, non agent-related wastes in containers are managed in RCRA-permitted hazardous waste management unit Building 540. These RCRA-permitted hazardous waste storage units are managed in accordance with 6 CCR 1007-3 § 264 Subpart I. Containers holding Investigation-Derived Waste (IDW) may be stored temporarily at less than 90-day storage areas or satellite accumulation areas such as monitoring wells or Solid Waste Management Units (SWMUs) under investigation.

Containers used to store hazardous waste at PCD include any portable device in which hazardous waste is stored, transported, treated, disposed of, or otherwise handled, as defined in 6 CCR 1007-3 § 260.10. Approved containers include drums, Department of Transportation (DOT) bottles, M16 propellant (prop) charge cans (container for leaker rounds), single round containers (SRCs) and ammunition boxes. Other drums and containers may be used such as wrangler boxes, where appropriate, and in accordance with the requirements of 6 CCR 1007-3 § 264 Subpart I.

Containers that have a design capacity of less than or equal to 0.1 cubic meter (m^3) (approximately 26 gallons) are not subject to the requirements described in 6 CCR 1007-3 Subpart 264.1080(b)(2). All containers with design capacities greater than 0.1 m^3 (26.42 gallons) used to store hazardous waste at PCD are managed according to the Container Level 1 standards described in 6 CCR 1007-3 Subpart 264.1086(c). Containers subject to Container Level 1 standards are stored in RCRA-permitted hazardous waste management units G203, G1009, G1107, G1109, G1110, and Building 540. Containers holding IDW may be stored at temporary storage areas such as monitoring wells or SWMUs under

investigation. Containers with design capacities greater than 0.46 m^3 (119 gallons) used to store hazardous waste at PCD are not in light material service, as defined by 6 CCR 1007-3 Subpart 265.1081, and are therefore, managed according to Container Level 1 standards. Hazardous waste is stored in either one of the following:

- A container that meets the applicable DOT regulations for packaging hazardous materials for transportation as specified in 6 CCR 1007-3 Subpart 264.1086(f)

- A container equipped with a cover and closure devices that form a continuous barrier over the container opening such that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container.

Hazardous waste containers used to meet Container Level 1 standards are composed of suitable materials to minimize exposure of the hazardous waste to the atmosphere and to maintain integrity for as long as the container is in service. Container closure devices (i.e., drum lids, gaskets, and chimes) are kept in the closed position except when performing one of the following:

- Adding or removing waste
- Accessing the container interior to perform routine activities
- Temporarily opening a closure device, vent, or safety device to avoid unsafe condition.

Appendix 7-1 provides PCD's Subpart CC Compliance Strategy.

Waste containers shipped offsite conform to the criteria described in 49 CFR 173.24, 173.24(a), 178, and 179. Containers are selected for each type of waste in accordance with the Hazardous Materials Table in 49 CFR 172.101.

PCD maintains a written inventory of hazardous waste in storage. The inventory is updated when a new waste is generated or existing waste is disposed of. The inventory contains information about the quantity and location of hazardous wastes stored in permitted storage units.

7-1a Containers with Free Liquids

Containers with free liquids stored at PCD may include the following: overpacked waste munitions; 15-, 30-, 55-, 85-gallon drums; and overpacked drums of liquid waste. Other drums or containers may be used where appropriate, and in accordance with the requirements of 6 CCR 1007-3 § 264 Subpart I. Examples of other approved containers include drums, SRCs, DOT bottles, and M16 prop charge cans (overpack containers for leaker rounds). Various sizes of DOT-approved drums containing non agent hazardous wastes are used in Building 540.

7-1a(1) Description of Containers [6 CCR 1007-3 § 264.171 and 264.172]

Overpacked Waste Munitions

Overpacked waste munitions are managed in accordance with 6 CCR 1007-3 § 264 Subpart I, as described in the following paragraphs.

Leaking munitions are waste chemical munitions that have developed a vapor leak or a liquid leak. Approved SRCs are used to overpack leaking munitions. Leaking munitions are overpacked and managed as hazardous waste. Leakers are stored in RCRA-compliant overpack containers in RCRA-permitted agent-related hazardous waste management units G203, G1009, G1107, G1109, and G1110. Because the munition casing has been compromised, the overpack serves as primary containment. RCRA-permitted hazardous waste management units G203, G1009, G1107, G1109, and G1110 used for overpacked leaker storage are air-monitored for the presence of leaking chemical agents on a weekly basis, and visually inspected quarterly.

Table 7-1-1,[1] Approved Munition Overpacks, is a current list of overpacks approved for containing leaking chemical munitions or leaking primary overpack containers. The Army updates this listing as improved overpacks are developed. All confirmed leaking munitions are packaged in primary overpack containers and transported to permitted leaker storage. These overpack containers provide primary containment for leaking munitions.

Use of overpacks other than those identified in **Table 7-1-1** requires approval from U.S. Army Chemical Materials Activity (CMA) Headquarters and CDPHE via the permit modification process.

[1] All tables are located at the end of this section.

Agent-Related Waste

RCRA-permitted hazardous waste management units G203, G1009, G1107, G1109, and G1110 may store waste munitions and overpacked leaking munitions, each unit with the capacity of 300 rounds (155 mm) or an equivalent aggregate volume of 330 gallons of agent (each round holds a maximum of 0.147 cubic foot or 1.10 gallons). Munition containers are identified by lot per Department of Defense Explosives Safety Board (DDESB) storage standards (DDESB, *DOD Ammunition and Explosive Safety Standards*, DOD 6055.9-STD, July 1999).

Containers used to store agent-related waste without free liquids [e.g., agent-contaminated personal protective equipment (PPE), agent-contaminated dunnage] in RCRA-permitted hazardous waste management unit G1110 are described in section 7-1b(2).

Non agent-Related Waste

Containers storing non agent-related free liquids in Building 540 consist primarily of RCRA-compliant 15-, 30-, 55-, and 85-gallon drums. Other containers specified in the Hazardous Materials Table (49 CFR 172.101) may also be used.

7-1a(2) Container Management Practices [6 CCR 1007-3 § 264.173, 264.174, 264.176, 264.177, and 264.179]

Hazardous waste storage requires many different management practices to ensure safe operations and protection of the environment. Local Standing Operating Procedures (SOPs) describe procedures for packaging agent-related waste, and the PCD Hazardous Waste Management Plan (HWMP), Section 3.4.2, describes procedures for non agent-related hazardous wastes, labeling containers, and performing waste inventories. Additional information pertaining to overpacked chemical munition storage and handling is provided in the U.S. Department of Army Pamphlet (DA Pam) 385-64, Ammunition and Explosives Safety Standards, Chapter 14. Containerized hazardous wastes are managed according to 6 CCR 1007-3 § 264 Subpart I.

The PCD property line is well over the required minimum 50-foot distance from the nearest RCRA-permitted hazardous waste management units G203, G1009, G1107, G1109, G1110, and Building 540, so ignitable or reactive waste may be stored in these facilities in compliance with

6 CCR 1007-3 § 264.176. Reactive wastes stored in RCRA-permitted hazardous waste management units G203, G1009, G1107, G1109, and G1110 include explosive and propellant components of waste chemical munitions.

An operating record is maintained for the life of the facility that specifies the location of each waste container and correlates waste analysis results to waste containers, as required in 6 CCR 1007-3 § 264.73. The contents of leaking or damaged containers are repackaged in RCRA-compliant containers. Headspace is left in all containers storing volatile liquid to avoid damage caused by expansion of wastes as a result of temperature increases.

Overpacked Waste Munitions

Container management activities in RCRA-permitted agent-related hazardous waste management units G203, G1009, G1107, G1109, and G1110 include: air monitoring for leak detection, inspecting, labeling, and conducting inventory for functioning containers, and overpacking leaking containers.

RCRA-permitted agent-related hazardous waste management units G203, G1009, G1107, G1109, and G1110 do not exceed the design and designated quantities of munitions stored in each RCRA-permitted hazardous waste management unit, as indicated in Part A of this permit application. Munitions are stored in accordance with approved storage drawings for orientation of items and in accordance with RCRA permit conditions. PCD will not exceed the specified net explosive weight as detailed in explosive storage licenses issued to PCD by the DDESB or any other relevant Federal agency. These licenses, along with relevant storage drawings for igloos G1009, G1107, G1109, G1110, and G203, plus design and designated quantities information for each magazine are necessary to meet the requirements of RCRA and are hereby added to the Compliance Section I.J. of this permit. A materials handling equipment (MHE) aisle is maintained between pallets within the RCRA-permitted hazardous waste management units to facilitate inspections and movement of personnel around stacks. The MHE aisle allows unrestricted movement of fire protection and decontamination equipment in case of emergencies. A minimum 3-foot aisle space is maintained between the RCRA-permitted hazardous waste management unit walls and palletized waste munitions and between rows of pallets in the RCRA-permitted hazardous waste management units. Different munition lots stored in the same RCRA-permitted hazardous waste management units are separated by rows or other spacing and/or are identified by tags or signs.

Air in RCRA-permitted hazardous waste management units G203, G1009, G1107, G1109, and G1110 is monitored weekly for the presence of leaking chemical agent. The RCRA-permitted hazardous waste

management units G203, G1009, G1107, G1109, and G1110 are normally closed and secured with access limited to authorized personnel. Storage requirements include the following:

- All containers must be palletized.
- Containers must not be stacked.

A hazardous waste label is placed on each container with the following information:

- Waste codes
- Nomenclature
- Date of accumulation
- Facility information.

Currently, PCD performs all air monitoring and inspection using the Depot Area Air Monitoring System (DAAMS) and MINICAMS® according to approved PCD SOPs. The design of this monitoring system is optimized for agent detection in a number of ways. Mustard has a low vapor pressure (0.11 millimeter of mercury [mm Hg] at 25°C) and volatility (600 milligrams per cubic meter [mg/m^3]), so it is necessary to use equipment that can detect very low concentrations of which the MINICAMS and DAAMs are capable. The containers in RCRA-permitted hazardous waste management units G203, G1009, G1107, G1109, and G1110 are monitored through the headwall by agent detectors on a weekly basis using RTAPs equipped with MINICAMS.

Visual inspections are also employed to detect liquid mustard spills because the low vapor pressure of mustard limits detection in the vapor phase. Visual inspections of RCRA-permitted hazardous waste management units G203, G1009, G1107, G1109, and G1110 are performed quarterly. Visual inspections are also conducted for every open door operation during first entry. Semi-annual Magazine Inspections (SMIs) are conducted twice per year. Visual inspections ensure hazardous waste management units are dry, free of visible evidence of leakage, and free of visible signs of deterioration caused by corrosion or other factors. Leakage evidence for visual inspection purposes includes but not limited to fresh staining, liquid sheens, drips and runs, puddles, bubbling or foaming, and/or the presence of residue or precipitate.

New munition overpacks are inspected upon receipt and again immediately before use if they have not been inspected within the last 90 days.

Agent-Related Waste

Agent-related waste is generated at PCD during chemical operations. These wastes include decontamination solution and agent-related laboratory wastes from Building 487. Containerized waste is managed in accordance with 6 CCR 1007-3 § 264 Subpart I. The RCRA-permitted agent-related hazardous waste management units G203, G1009, G1107, G1109, and G1110 are closed and secured with access limited to authorized personnel. The storage requirements for agent-related waste are the same as those for overpacked munitions listed previously. Additionally, agent-related waste containers must always be closed except when adding or removing waste. Containment features in RCRA-permitted hazardous waste management units G203, G1009, G1107, G1109, and G1110 are inspected during quarterly visual inspections.

Building 487 Laboratory accumulates and temporarily stores agent-related wastes from laboratory activities.

Non agent-Related Waste

Permitted hazardous waste storage units are closed and access is limited to authorized personnel. The following are the applicable storage requirements:

- Containers must not be larger than 85-gallon capacity or smaller than 5-gallon capacity.
- Containers less than 30-gallon capacity must not be stacked.
- Containers with 30- through 85-gallon capacities may be stacked on pallets.
- Containers with 30- through 85-gallon capacities must not be stacked more than two high, and pallets must be placed between the first and second levels. Multiple containers on a single pallet that are stacked above other containers are banded together to ensure a stable arrangement.

Ignitable wastes stored in Building 540 may include spent halogenated cleaning solvents, Stoddard solvent, and lacquer thinner. Sources of ignition or reaction, such as open flames, welding torches, hot surfaces, frictional heat, sparks, spontaneous ignition sources, and radiant heat are excluded from Building 540. Incompatible wastes are stored in four different quadrants of the Building 540 hazardous

waste storage unit, each separated by a 6-inch concrete curb. Acids, ignitables, reactives, and toxics are stored in specific quadrants according to waste characteristics. Refer to **Figure 7-1-1**,[2] Building 540 Secondary Containment, for descriptions of the four quadrants in the Building 540 storage unit.

Primary container management activities include container inspections, labeling, inventory, and compatibility. Labels must be legible and include:

- Nomenclature
- Date of accumulation
- DOT shipment label
- Facility information
- Waste codes.

Containers are kept closed during storage except when adding wastes, as specified in 6 CCR 1007-3 § 264.173.

Proper aisle space is maintained in all non agent hazardous waste storage units to allow unobstructed movement of personnel, MHE, and spill control and decontamination equipment. A main aisle with a width of at least 3 feet must be maintained in Building 540 to allow access to the center forklift ramp. Aisle spacing in Building 540 is 3 feet from walls or berms. Secondary aisle space at least 3 feet wide between each row must be maintained, with rows not wider than two drums or one 4-foot by 4-foot pallet.

Building 540 containers and spill equipment are inspected weekly, as described in Permit Attachment 2, with results noted on inspection forms. In the event that significant deterioration of a container is observed or a ruptured container is identified, the wastes stored in the container are either overpacked or transferred to a new container. No ignition sources are permitted in enclosed storage units.

RCRA regulations require that hazardous waste containers be labeled during storage and before shipment offsite with a hazardous waste label that shows the DOT shipping name and U.S. Environmental Protection Agency (USEPA) and/or Colorado Department of Public Health and Environment (CDPHE) waste identification numbers/codes identifying the waste material.

[2] All figures are located at the end of this section.

7-1a(3) Secondary Containment System Design and Operation [6 CCR 1007-3 § 100.41(b)(1)(i) and § 264.175]

RCRA-permitted agent-related hazardous waste management units G203, G1009, G1107, and G1109 use containment pallets to provide secondary containment. The RCRA-permitted hazardous waste management units are also equipped with bermed, concrete floors. **Figure 7-1-2**, RCRA-permitted hazardous waste management units G203, G1009, G1107, G1109, and G1110 Secondary Containment, shows the containment pallets. Building 540 uses bermed concrete floors and containment pallets for secondary containment. **Figure 7-1-1** shows the features of Building 540.

7-1a(3)(a) Requirement for the Base or Liner to Contain Liquids [6 CCR 1007-3 § 270.15(a)(1) and 264.175(b)(1)]

RCRA-Permitted Agent-related Hazardous Waste Management Units G203, G1009, G1107, G1109, and G1110

The floor is coated with SEMSTONE 145-CT epoxy coating. Due to concern about deterioration and maintenance of the epoxy coating, PCD relies upon containment pallets for secondary containment. Minimum thickness of concrete floors and pads is 4 inches.

Building 540

Secondary containment for Building 540 is provided by a concrete pad constructed of thick concrete reinforced by No. 4 rebar, with berms at least 6 inches high. The concrete pad, built in 1981, is free of cracks or gaps. The steel-reinforced concrete secondary containment was constructed without construction joints and presents a seamless surface for inspection purposes. A minimum of 6 inches of compacted gravel forms the base under the concrete. Building 540 has a 4-inch thick concrete floor. Containment pallets are also used for secondary containment in Building 540.

7-1a(3)(b) Containment System Drainage [6 CCR 1007-3 § 100.41(b)(1)(i)(E) and § 264.175(b)(2)]

RCRA-Permitted Agent-related Hazardous Waste Management Units G203, G1009, G1107, G1109, and G1110

The floor is sloped 1 inch every 15 feet toward the front of each RCRA-permitted hazardous waste management unit G203, G1009, G1107, G1109, and G1110 to drain liquids away from the containers. Existing drainage to the outside of the RCRA-permitted hazardous waste management units G203, G1009, G1107, G1109, and G1110 is filled with concrete and sealed. Interior drain troughs are not filled, but concrete plugs have been installed every 3 to 4 feet to segment the troughs, and these are sealed.

Building 540

The concrete floor in Building 540 is sloped to the outer corners. Each corner contains a drain. The drains consist of a capped polyvinylchloride (PVC) pipe. The drains remain capped at all times.

7-1a(3)(c) Containment System Capacity [6 CCR 1007-3 § 100.41(b)(1)(i)(c) and § 264.175(b)(3)]

RCRA-Permitted Agent-related Hazardous Waste Management Units G203, G1009, G1107, G1109, and G1110

Per 6 CCR 1007-3 § 264.175(b)(3), a hazardous waste storage unit containment system, such as a containment pallet, must have the capacity to contain at least 10 percent of the total volume of all containers or the volume of the largest container on that containment system, whichever is greater. The maximum number of rounds to be stored in RCRA-permitted hazardous waste management units G203, G1009, G1107, G1109, and G1110 is 300 (155 mm), and each round contains 1.10 gallons of agent, for a total maximum liquid agent volume of 330 gallons per RCRA-permitted hazardous waste management unit. Containment pallets for overpacked munitions have a 44-gallon capacity. Containment pallets for drums have a 66-gallon capacity. The load-bearing capacity for both the 44-gallon and 66-gallon containment pallets is 6000 pounds. No more than four 55-gallon drums are placed per containment pallet and no more than 12 overpacked munitions are placed per containment pallet.

Building 540

A steel-reinforced concrete pad with berms and containment pallets provide secondary containment for Building 540. The pad is 75 feet by 75 feet and divided into four quadrants. The inner dimensions of each quadrant are 36.75 feet by 36.75 feet. Quadrants are separated by 6-inch high berms, and the pad is surrounded by an 8-inch high berm.

Containment capacity in each compartment is about 5,050 gallons, equaling a total containment capacity for Building 540 of 20,200 gallons. The containment system must maintain the capacity to contain at least 10 percent of the total volume of all the containers stored in each containment area. Since the maximum capacity of Building 540 is 13,200 gallons, the 5,050-gallon containment capacity is more than sufficient to meet the 10 percent requirement (10 percent of 13,200 = 1,320 gallons).

7-1a(3)(d) Control of Run-on [6 CCR 1007-3 § 264.175(b)(4)]

RCRA-Permitted Agent-related Hazardous Waste Management Units G203, G1009, G1107, G1109, and G1110

The RCRA-permitted hazardous waste management units G203, G1009, G1107, G1109, and G1110 at PCD are completely enclosed structures. Concrete walls prevent run-on from precipitation.

Building 540

Building 540 is roofed to prevent run-on caused by precipitation. Six-inch curbs surrounding Building 540 prevent run-on of any liquids that may accumulate on the ground. A drainage ditch with 2:1 side slopes surrounds the building's concrete pad, diverting runoff away from the storage area. Building 540 is elevated on a concrete pad to provide drainage away from the site. The Building 540 foundation sits approximately 6 inches above ground level on a compacted gravel base and the foundation slopes down to a shallow drainage around the building. All containers within Building 540 are on secondary containment pallets so there is no possibility of hazardous materials escaping into the environment. Each compartment is sloped to the outer corner, and each corner contains a PVC drain. Drains remain capped/plugged at all times.

7-1a(3)(e) Removal of Liquids from Containment Systems [6 CCR 1007-3 § 264.175(b)(5)]

If any accumulated liquid is found on the floor or in the floor drains of the RCRA-permitted hazardous waste management units G203, G1009, G1107, G1109, and G1110, or in a compartment in Building 540, an appropriate response is taken in a timely manner in accordance with 6 CCR 1007-3 § 264.175(b)(5). Procedures for removal of liquids in the RCRA-permitted hazardous waste management units G203, G1009, G1107, G1109, and G1110 are described in local SOPs (SOP 486, PCD SOP for Chemical Operations; SOP 465, PCD SOP for Laboratory Operation). In Building 540, accumulated liquid from spills or leaks is collected and placed in drums. A hazardous waste determination is performed on accumulated wastewater to determine appropriate disposition.

7-1b Containers Without Free Liquids or F020, F021, F022, F023, F026, and F027 Wastes

Containers without free liquids may include the following: 15-, 30-, 55-, and 85-gallon drums of agent-related waste in the RCRA-permitted hazardous waste management units G203, G1009, G1107, G1109, and G1110 and various RCRA-compliant containers (boxes and other bulk containers) of nonagent-related hazardous waste in Building 540. These containers meet the criteria specified in 6 CCR 1007-3 § 264 Subpart I and the definition of "container" in 6 CCR 1007-3 § 260.10. Other containers that meet these criteria may also be used in permitted storage. RCRA-permitted hazardous waste management unit G1110 also stores all agent-related solid waste without free liquids and has a storage capacity of 144, 55-gallon drums, an equivalent volume of 7,920 gallons. Only the agent-related hazardous waste streams identified in the Waste Analysis Plan (WAP) may be stored in containers in RCRA-permitted hazardous waste management unit G1110. There are no containers with F020, F021, F022, F023, F026, or F027 waste at PCD.

7-1b(1) Test for Free Liquids

Wastes without free liquids generated at PCD are characterized by generator knowledge. If generator knowledge does not sufficiently document the absence of free liquids, the waste is further characterized using the Free Liquids Test (USEPA, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846,* current edition, as referenced in the Colorado Hazardous Waste Regulations (6 CCR 1007-3)), Method 9095, as specified in the WAP in Permit Attachment 3.

7-1b(2) Description of Containers [6 CCR 1007-3 § 264.171 and 264.172]

Agent-Related Waste Without Free Liquids

Agent-related solid waste and other hazardous wastes without free liquids are stored in RCRA-compliant containers. Typical wastes include dunnage, contaminated PPE, agent-contaminated rags, and other equipment. Storage containers meet the requirements of 6 CCR 1007-3 § 264 Subpart I and the definition of "container" in 6 CCR 1007-3 § 260.10. The following solid waste containers are used in permitted agent-related waste storage:

- RCRA-compliant 15-, 30-, 55-, and 85-gallon drums
- All-weather, DOT type 1G, fiber drums, with a maximum capacity of 400 pounds.

These drums are designed to be sufficiently water-resistant so as not to delaminate under normal conditions of transport, and they are plastic-lined. These drums have an open-head design with a ring and snapping lock.

Non agent-Related Waste Without Free Liquids

Containers are primarily standard 5-, 15-, 30-, 55-, and 85-gallon drums (85-gallon containers are primarily used for overpacks). Containers used must meet the criteria specified in 6 CCR 1007-3 § 264 Subpart I and the definition of "container" in 6 CCR 1007-3 § 260.10.

General Container Descriptions

Container Labeling

Containers without free liquids are labeled with "hazardous waste." RCRA regulations require hazardous waste containers be labeled during storage and before shipment offsite with a hazardous waste label that shows the DOT shipping name and USEPA, and Colorado hazardous waste identification numbers identifying the waste material. Containers are labeled in accordance with the PCD HWMP, and labels include the following:

- Nomenclature
- Date of accumulation

- DOT shipment label
- Facility information
- Waste codes.

Inventory

PCD maintains a written inventory of hazardous waste in storage. The inventory is updated when new waste is received or existing waste is disposed of. The inventory contains information about the quantity and location of hazardous wastes in permitted storage units and IDWs stored in SWMUs.

Container Storage Capacity

RCRA-permitted hazardous waste management unit G1110 has a storage capacity of 144, 55-gallon drums or equivalent volume of 7,920 gallons (solids only). Some wastes stored in G1110 are agent-related hazardous wastes without free liquids and some are stored with free liquids. The maximum capacity of Building 540 is 240, 55-gallon drums, or an equivalent volume of 13,200 gallons. Most of the non agent-related hazardous waste stored in Building 540 is waste with free liquids, although some wastes without free liquids are stored there. There is no limit to the volume of waste that can be stored in a 90-day storage area, so long as the waste is removed within 90 days from the accumulation start date. A maximum of 55 gallons of hazardous waste, or one quart of any acutely hazardous waste listed in 261.33(e), may be stored at satellite accumulation points at any one time.

7-1b(3) Container Management Practices [6 CCR 1007-3 § 264.173, 264.176, 264.177, and 264.179]

Primary container management activities include hazardous waste storage, container inspections, labeling, and inventory. A detailed discussion of PCD container management practices is provided in Section 7-1a(2).

7-1b(4) Container Storage Area Drainage

A discussion of container storage area drainage design features is provided in Section 7-1a(3)(b).

7-1c Special Requirements for Ignitable or Reactive Waste [6 CCR 1007-3 § 264.176]

Reactive wastes at PCD are located more than 15 meters (50 feet) from the PCD property line.

7-1d Incompatible Waste Storage [6 CCR 1007-3 § 264.177(a) through (c)]

Stored containers are compatible with the waste materials contained within, and all stored wastes are compatible with each other. Wastes are segregated according to compatibility, and only DOT-approved containers are used for hazardous waste (PCD *Hazardous Waste Management Plan*, dated January 2012, and DA Pam 385-64, *Ammunition and Explosives Safety Standards*, current version). Energetics are segregated according to explosive compatibility tables and DA Pam 385-64. Hazardous wastes in Building 540 are segregated by compatibility within one of the four quadrants inside the building.

7-1e Air Emission Control Equipment [6 CCR 1007-3 § 264.179]

This section describes the applicability of the Subsection CC RCRA requirements for air emission control for containers and the control measures employed as applicable.

7-1e(1) Identification and Certification of Storage Areas [6 CCR 1007-3 § 100.41(b)(13); Subpart CC]

PCD stores energetic munitions and DOT cylinders that contain mustard agent. Where munitions are contained in overpacks, the overpacks are the primary containers. For non-overpack munitions and DOT cylinders, the munition casing and cylinders are the primary containers. Some of the overpacks and DOT cylinders are less than or equal to 0.1 cubic meter (26 gallons) and are, therefore, exempt from the Subpart CC regulations per 6 CCR 1007-3 § 264.1080(b)(2). The larger overpack containers are greater than 26 gallons in volume, but meet Level 1 controls required for containers that are greater than 0.1 cubic meter (26 gallons) and less than or equal to 0.46 cubic meter (119 gallons) by volume. Any container greater than 0.46 m^3 (119 gallons) is managed in accordance with Level 1 controls as they are not in "light material service." See **Appendix 7-1** Subpart CC Compliance Strategy for more information.

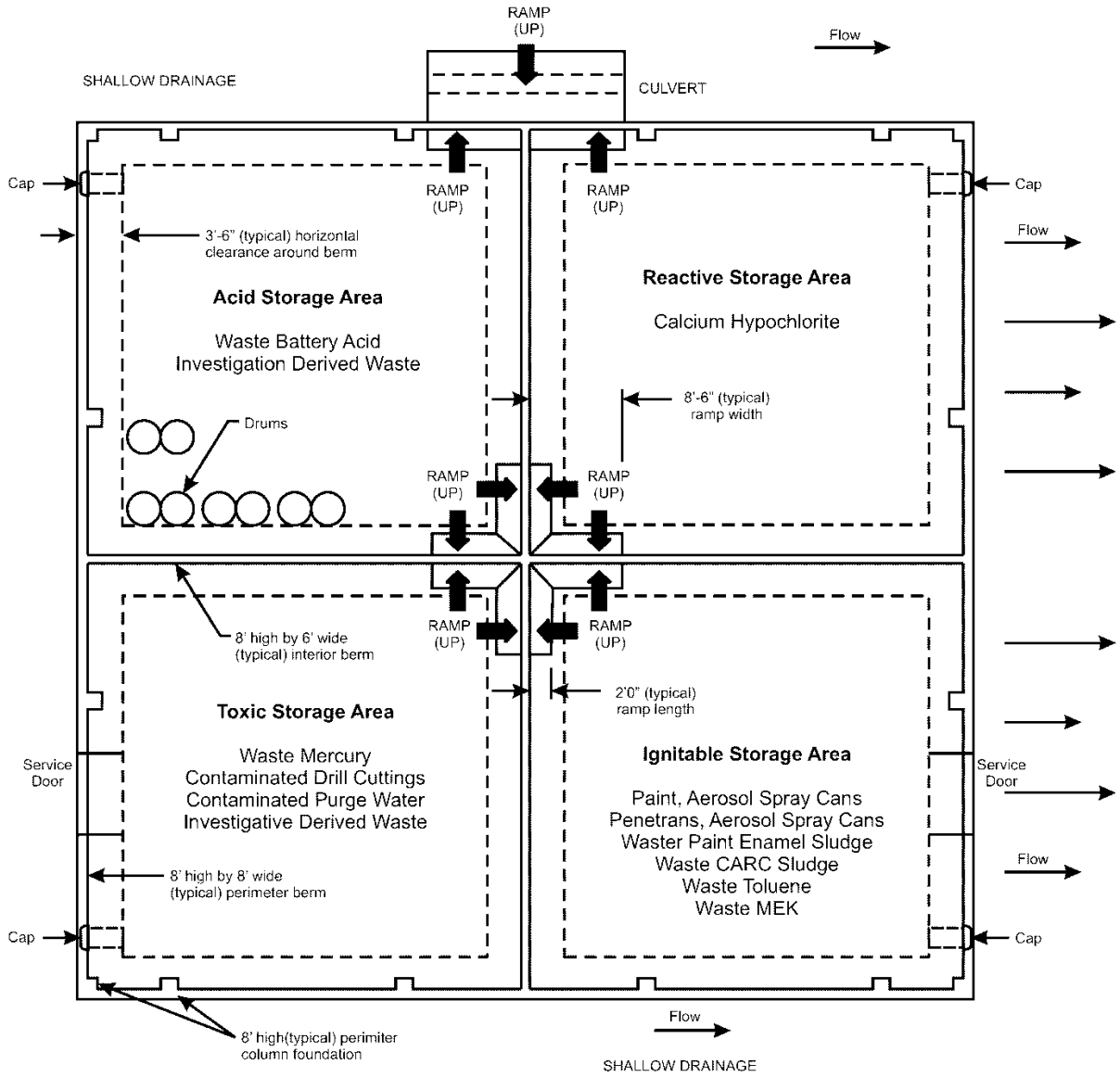

Figure 7-1-1. Building 540 Secondary Containment

Figure 7-1-2. RCRA-Permitted Hazardous Waste Management Unit Secondary Containment (Sheet 1 of 2)

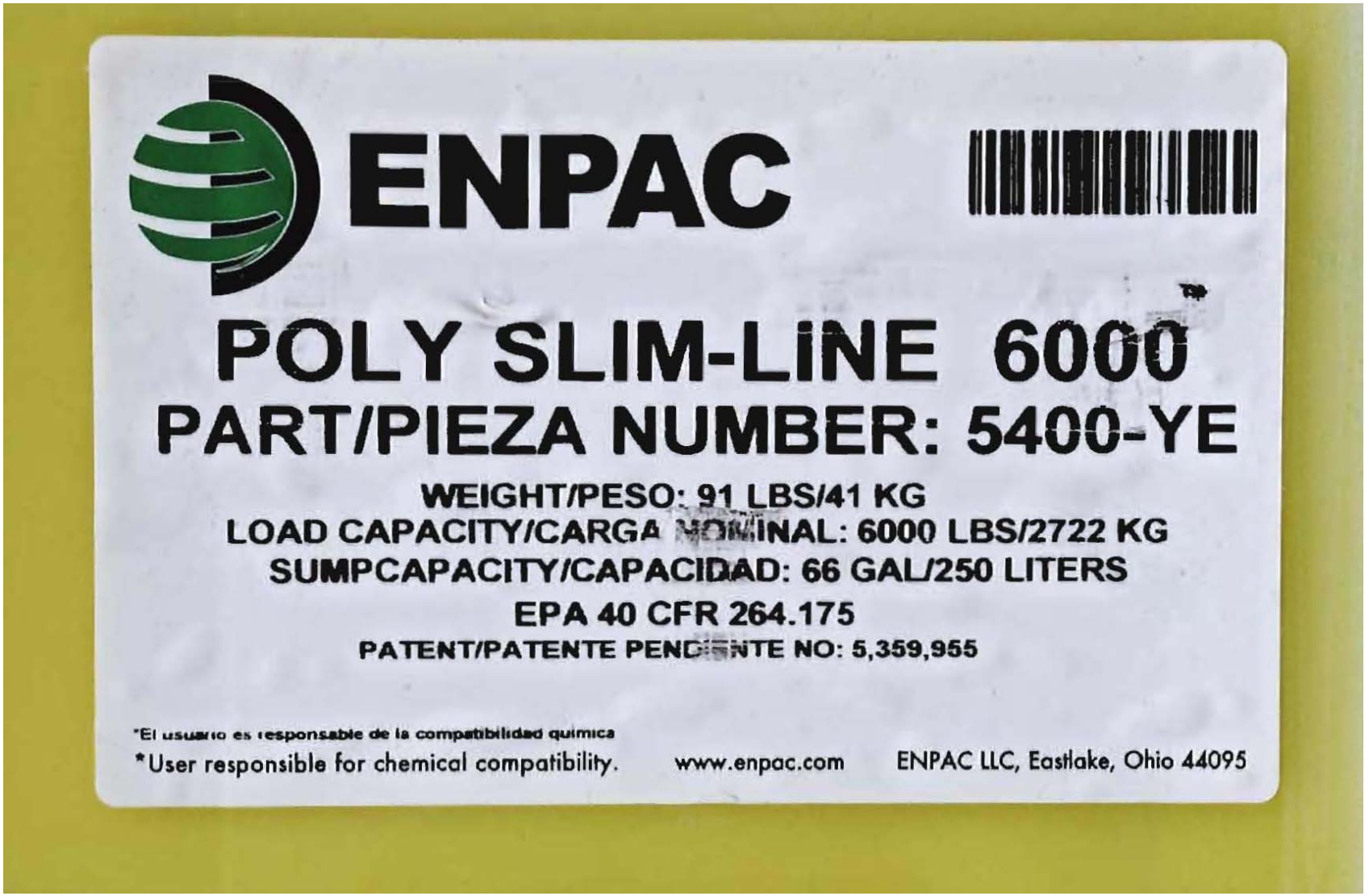

Figure 7-1-2. RCRA-Permitted Hazardous Waste Management Unit Secondary Containment (Sheet 2 of 2)

Table 7-1-1. Approved Munition Overpacks

Item	Primary Overpack & National Stock Number (NSN)	Secondary Overpack
155mm Projectile	9" x 41" SRC P/N ACV00655	N/A[a]
105mm Projectiles and 4.2-inch Mortars	7" x 27" SRC P/N S727001 5.4" x 36" Retrofit M55 SRC	N/A[a]

Notes:

Reference: Supply Bulletin (SB) 742-1, Inspection of Supplies and Equipment Ammunition Surveillance Procedures, dated September 1, 2008; updated February 27, 2013.

[a] No secondary overpack is identified for the 5.4" x 36" Retrofit M55, 7" x 27" and 9" x 41" SRCs. Due to extensive product testing and demonstrated performance history, it has been determined that the probability of these containers leaking is negligible. If a leak is detected, the PCD Contingency Plan process would begin. Refer to Section G of this permit renewal application for a description of the contingency plan process.

SRC = single round container

APPENDIX 7-1
SUBPART CC COMPLIANCE STRATEGY

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APPENDIX 7-1
SUBPART CC COMPLIANCE STRATEGY

1.0 GENERAL

This plan describes how Pueblo Chemical Depot (PCD) site operations will comply with the air emissions requirements of the Resource Conservation and Recovery Act (RCRA) and the Colorado Code of Regulations (CCR) 6 CCR 1007-3, Part 264, Subparts AA, BB, and CC. Subpart AA requirements are not applicable because PCD operations do not contain any process vents associated with distillation, fractionation, thin film evaporations, solvent extraction, or steam stripping. Subpart BB requirements are not applicable because PCD operations do not include equipment (pumps, valves, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, or other flanges and connectors) that contains or contacts hazardous waste of at least 10 percent organic content by weight.

2.0 APPLICABILITY OF SUBPART CC – AIR EMISSION STANDARDS FOR TANKS, CONTAINERS, AND SURFACE IMPOUNDMENTS (6 CCR 1007-3, § 264.1080)

Subpart CC requirements apply to permitted treatment, storage, and disposal facilities that manage hazardous waste in tanks, containers, surface impoundments, or miscellaneous units and to large quantity generators that accumulate hazardous wastes in tanks and containers. Waste management units that contain hazardous wastes with an average volatile organic concentration of greater than or equal to 500 parts per million by weight (ppmw) at the point of origin are subject to Subpart CC requirements.

A waste determination (through chemical analysis or process knowledge) is required to prove a waste stream is exempted from Subpart CC. No determination is required if the wastes are placed in waste management units that employ air emission controls in compliance with Subpart CC.

2.1 Levels of Control for Containers

For containers, there are three levels of controls. Container controls are based on design capacity, total organic content of the material in the container (in or out of light service), and use of the container (for example, treatment by stabilization or other methods).

2.2 Method of Compliance

Control requirements for containers are based on the design capacity, the total organic content of the material in the container, and use of the container (treatment or storage). The total organic content of the material in the container refers to whether the material is "in" or "out" of light service. In or out of light service is determined by the vapor pressure of the waste material at 20°C. This determination is required when storing wastes in containers that are greater than 0.46 cubic meter (m^3) (119 gallons). Some PCD containers are greater than 119 gallons; therefore, the Subpart CC requirement to make a determination as to whether wastes are in or out of light service applies.

Per 6 CCR 1007-3 § 265.1081, "in light material service" means a container is used to manage a material for which both the vapor pressure of one or more of the organic constituents in the material is greater than 0.3 kilopascals (kPa) at 20°C, and the total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa at 20°C is equal to or greater than 20 percent by weight. The containers in PCD hazardous waste management units with capacities greater than 0.46 m^3 (119 gallons) will be used to temporarily hold unpacked single round containers (SRCs) pending shipment offsite. Therefore, the material in the containers will be mustard agent. All organic liquid components and chemical agents have vapor pressures at 20°C of less than 0.3 kPa. The vapor pressure for H mustard at 20°C is 0.00896 (U.S. Army Edgewood Chemical Biological Center [ECBC], Safety Data Sheet (HD), 5 March 2009). Therefore, according to 6 CCR 1007-3 § 264.1086(b)(1)(ii), for " a container having a design capacity greater than 0.46 m^3 (approximately 119 gallons) that is not in light material service, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 1 standards" in 6 CCR 1007-3 § 264.1086(c). Containers in PCD hazardous waste management units will not be used for treatment of a hazardous waste by a waste stabilization process; therefore, the requirements of 6 CCR 1007-3 § 264.1086(b)(2) do not apply.

PCD complies with Subpart CC by meeting Level 1 controls for containers. PCD will control air pollutant emissions from each container in accordance with the standards specified in 6 CCR 1007-3, Part 264, Subpart CC. Hazardous waste containers stored at PCD with design capacities less than or equal to 0.1 m^3 (approximately 26 gallons) are not subject to the requirements of 6 CCR 1007-3, Part 264, Subpart CC. Hazardous waste containers stored at PCD with design capacities greater than 0.1 m^3, including those with design capacities greater than 0.46 m^3, will be managed in accordance with the Container Level 1 standards described in 6 CCR 1007-3 § 264.1086(c) and all other applicable standards in 6 CCR 1007-3, Part 264, Subpart CC.

Containers will be inspected in accordance with the requirements of 6 CCR 1007-3 § 264.1086(c)(4). Documentation of the inspections will be maintained in the facility operating record. The recordkeeping requirements [6 CCR 1007-3 § 264.1089] and reporting requirements [6 CCR 1007-3 § 264.1090] will be followed and the records maintained in the facility operating record.

2.3 Operating Requirements for Container Control Level 1

Containers will be kept closed except when adding, removing, or sampling wastes.

2.4 Inspection, Recordkeeping, and Repair Requirements for Container Level 1

Ensure closure devices (lids, bungs, covers) are in good condition (closed securely, no visible damage that would impair storage). Also, check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover or closure devices are secured in the closed position. Containers using Control Level 1 must be visually inspected for defects at the time the waste is first managed in the container or when accepted at the facility (in this case the less than 90-day hazardous waste storage area). A visual inspection will be recorded when the containers are placed in the storage unit area. Upon discovering any defect, an effort will be made to repair the container within 24 hours. The defect must be repaired or the container removed from service within 5 days of discovering a defect.

Additional inspection requirements are provided in Attachment 2.

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